

WHAT IS CLAIMED IS:

1 1. A production method of an absorbent body comprising the steps of:
2 supplying a first cover sheet on an outer surface of a rotating pattern drum, said pattern drum
3 provided with a concavity formed in a predetermined shape on the outer surface thereof;

4 adapting the first cover sheet to the shape of the concavity and supplying an
5 absorbent material into the concavity to form an absorbent material layer adapted to the
6 shape of the concavity on the first cover sheet;

7 supplying a second cover sheet toward the outer surface of the pattern drum;

8 and

9 separating the first cover sheet together with the absorbent material layer from
10 the outer surface of the pattern drum and superposing the first cover sheet together with the
11 absorbent material layer on the second cover sheet to produce an absorbent body comprised
12 of the first cover sheet, the second cover sheet and the absorbent material layer interposed
13 between the first cover sheet and the second cover sheet.

1 2. A production method of an absorbent body as described in Claim 1,
2 wherein a bottom of the concavity is formed as a mesh, and a suction means is provided
3 inside of the pattern drum for sucking air through the mesh to adapt the first cover sheet to
4 the shape of the concavity and for sucking air through the mesh and the first cover sheet to
5 form the absorbent material layer on the first cover sheet.

1 3. A production method of an absorbent body as described in Claim 2,
2 wherein a pressure means is provided inside of the pattern drum for pressuring air through
3 the mesh to separate the first cover sheet together with the absorbent material layer from the
4 outer surface of the pattern drum.

1 4. A production method of an absorbent body as described in Claim 3,
2 wherein the absorbent material layer comprises absorbent fibers and particulate super-
3 absorbent polymers.

1 5. A production method of an absorbent body as described in Claim 4,
2 wherein the particle size of the super-absorbent polymers is 60 mesh or smaller.

1 6. A production method of an absorbent body as described in Claim 4,
2 wherein the content of the super-absorbent polymers in the absorbent material layer is in a
3 range of 20% to 90% by weight.

4 7. A production method of an absorbent body as described in Claim 1,
5 wherein an absorbent material layer is formed on the second cover sheet, and the absorbent
6 material layer formed on the first cover sheet is superposed on the absorbent material layer
7 formed on the second cover sheet, between the first cover sheet and the second cover sheet.

1 8. A production method of an absorbent body comprising the steps of:
2 supplying a first cover sheet on an outer surface of a first rotating pattern
3 drum, said first pattern drum provided with a first concavity formed in a predetermined shape
4 on the outer surface thereof;

5 adapting the first cover sheet to the shape of the first concavity and supplying
6 an absorbent material into the first concavity to form a first absorbent material layer adapted
7 to the shape of the first concavity on the first cover sheet;

8 supplying a second cover sheet on the outer surface of a second rotating
9 pattern drum, said second pattern drum provided with a second concavity formed in a
10 predetermined shape on the outer surface thereof;

11 adapting the second cover sheet to the shape of the second concavity and
12 supplying an absorbent material into the second concavity to form a second absorbent
13 material layer adapted to the shape of the second concavity on the second cover sheet; and

14 separating the first cover sheet together with the first absorbent material layer
15 from the outer surface of the first pattern drum and separating the second cover sheet together
16 with the second absorbent material layer from the outer surface of the second pattern drum

17 and superposing the first cover sheet together with the first absorbent material layer on the
18 second cover sheet together with the second absorbent material layer to produce an absorbent
19 body comprised of the first cover sheet, the second cover sheet and the first and second
20 absorbent material layers interposed between the first cover sheet and the second cover sheet.

1 9. A production method of an absorbent body as described in Claim 8,
2 wherein each bottom of the first and second concavities is formed as a mesh, and a first
3 suction means is provided inside of the first pattern drum and a second suction means is
4 provided inside of the second pattern drum, the suction means for sucking air through the
5 mesh to adapt the first and second cover sheets to the shapes of the first and second
6 concavities and for sucking air through the mesh and the first and second cover sheets to
7 form the first and second absorbent material layers on the first and second cover sheets.

1 10. A production method of an absorbent body as described in Claim 9,
2 wherein a first pressure means is provided inside of the first pattern drum and a second
3 pressure means is provided inside of the second pattern drum, the pressure means for forcing
4 air through the mesh to separate the first and second cover sheets together with the first and
5 second absorbent material layers from the outer surfaces of the first and second pattern
6 drums.

1 11. A production method of an absorbent body as described in Claim 10,
2 wherein the first absorbent material layer comprises absorbent fibers and optionally
3 particulate super-absorbent polymers, and the second absorbent material layer comprises
4 absorbent fibers and particulate super-absorbent polymers.

1 12. A production method of an absorbent body as described in Claim 11,
2 wherein the particle size of the super-absorbent polymers contained in the second absorbent
3 material layer is smaller than the particle size of the super-absorbent polymers contained in
4 the first absorbent material layer.

1 13. A production method of an absorbent body as described in Claim 12,
2 wherein the particle size of the super-absorbent polymers contained in the second absorbent
3 material layer is 60 mesh or smaller.

1 14. A production method of an absorbent body as described in Claim 11,
2 wherein the content of the super-absorbent polymers in the second absorbent material layer
3 is higher than the content of the super-absorbent polymers in the first absorbent material
4 layer.

1 15. A production method of an absorbent body as described in Claim 14,
2 wherein the content of the super-absorbent polymers in the second absorbent material layer
3 is 20% to 90% by weight.

1 16. A production method of an absorbent body as described in Claim 8,
2 wherein the first absorbent material layer and the second absorbent material layer are
3 superposed to each other.

1 17. A production method of an absorbent body as described in Claim 16,
2 wherein the first absorbent material layer and the second absorbent material layer are formed
3 in an identical shape and have different absorption properties from each other.

1 18. A production method of an absorbent body as described in Claim 16,
2 wherein the first absorbent material layer and the second absorbent material layer are formed
3 in different shapes.

1 19. A production method of an absorbent body as described in Claim 8,
2 wherein the first absorbent material layer and the second absorbent material layer have
3 different shapes and different absorption properties from each other and are combined
4 adjacent to each other in a horizontal plane.